

#### 4.3.1 State the arguments for preserving species and habitats.

**A. Food** - we eat lots of plants & animals But normally only a few varieties. → monocultures mean we are losing lots of varieties of food → ↑ susceptibility to pests & disease.

↳ plots of small farmers are raising "heritage" varieties  
↳ seedbanks are now used to store seeds long term.

**B. Natural Products** - medicines, fertilizers, & pesticides derived from plants & animals.

Also → oil, rubber, linen, rope, cotton, silk, honey, beeswax, rattan, perfumes, timber, etc.

**C. Ecological Services** - Orgs. perform services that maintain ecosystems & our world.

ex. Soil Aeration (worms), plants (esp. forests) act as

→ **Biological Control Agents** → Some orgs. naturally control pests, invasive spp.

↳ no chemicals required.

ex. ladybugs eat aphids

**D. Scientific & Educational Value** - We still don't know all of the orgs. that exist.

↳ We don't know how all of these orgs. work together & how loss of one will impact the bigger picture.

**E. Genes** -

Orgs. are the source of genes for Research & genetic engineering.

**F. Environmental Monitors** - Orgs. are sometimes monitors for environmental conditions → early warning of problems.

ex. taking canaries into coal mines.

certain orgs. in waterways are more susceptible to pollution.

G. Recreational & Ecotourism - People vacation to beautiful places.  
↓  
Tourism = \$.

H. Human Health - Drugs are often developed from organisms.  
↳ Penicillin from fungi.  
↳ Aspirin from Willow  
Lots of unknown drugs still can be developed.

J. Human Rights - if native ecosystems are protected then native people can continue with their traditional way of life.

K. Ethical/Intrinsic Rights - Each spp. has a right to exist whether or not humans need them for a specific reason.

Humans need to act as stewards to the Earth.